

Date: Thursday, 07/05/2009 3:53:35 PM  
 User: Melanie Fauteux

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: FWD WEARPLATE ASS'Y, STD/FLOAT GEAR
Job Number	: 47810		
Estimate Number	: 13893		
P.O. Number	:	Part Number	: D3849041
This Issue	: 07/05/2009 S.O. No. :	Drawing Number	: D3849 PREL
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: // Type : LARGE FAB ASSY	Drawing Revision	: PREL
Previous Run	:	Material	:
Written By	:	Due Date	: 14/05/2009 Qty: 2 Um: Each
Checked & Approved By	: <u>ME 09-05-08</u>		
Comment	: Est Rev:A 09.04.29 new issue EC verified by:DD		

Additional Product

Job Number:



<sup># 09.05.03</sup>  
**PRELIMINARY ISSUE**

Seq. #:

Machine Or Operation:

Description:

1.0

M304S18GA

304/316 .050 Sheet



**CERTIFICATE OF CONFORMITY  
 REQUIRED**



Comment: Qty.: 2.4500 sf(s)/Unit Total : 4.9000 sf(s)  
 304/316 .050 Sheet  
 batch: 11743 B9-5-13

2.0

WATER JET

FLOW WATER JET



Comment: FLOW WATER JET  
 1-Cut as per Dwg D3849  
 Dwg Rev: PRF  
 Prog Rev: Lim

B9-5-13

(2)

2-Deburr if necessary

B9-5-13

3.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

B9-5-13

4.0

QC8

SECOND CHECK



Comment: SECOND CHECK

0505-13 (2)

5.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Form as per dwg D3849

dt 8179 + dt 8155

B9-5-13 09/05/14 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 07/05/2009 3:53:35 PM  
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Drawing Name: FWD WEARPLATE ASS'Y, STD/FLOAT GEAR

Job Number: 47810

Part Number: D3849041

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



**ENGINEERING  
APPROVAL**



Comment: INSPECT WORK TO CURRENT STEP

7.0

D39011

Bar



Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Bar

batch: B47817

8.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1- On D3901-1 bar, fill cut outs with hardcoat welding rod as per dwg D3849

2059 B Hardcoat Welding Rod

BATCH#: M106681

2- Weld D3901-1 bar to wearplate by positioning holes together as per dwg D3849

304 S.S. Welding Rod

BATCH #: M102421

9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

11.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME: \_\_\_\_\_

OVEN TEMPERATURE: \_\_\_\_\_

FINISH TIME: \_\_\_\_\_

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3849-041 PAR #: \_\_\_\_\_ Fault Category: Large Patch used for engine NCR: Yes ☒ No ☐ DQA: [Signature] Date: 05.05.09

Resolution: Scrap Disposition: Scrap QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: <u>47810</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
05.06.22	10.0	After welding etc. the design of the new plate was not very good.  R.C: Prelim design	<u>[Signature]</u> 05.06.22	Scrap plates tray Replace w. the new design on W.O. 49626	<u>[Signature]</u> 9-6-22	<u>[Signature]</u> 05.06.22	<u>[Signature]</u> 05.06.22	<u>[Signature]</u> 05.06.22

NOTE: Date & initial all entries

Date: Thursday, 07/05/2009 3:53:35 PM  
User: Melanie Fauteux

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FWD WEARPLATE ASS'Y, STD/FLOAT GEAR

Job Number: 47810

Part Number: D3849041

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

13.0

D38481

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Gasket  
batch: \_\_\_\_\_

14.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1  
1- Bond D3848-1 gasket to inner surface of wearplate using a thin layer of 3m 1300/1300L scotch grip  
adhesive as per dwg  
BATCH: \_\_\_\_\_

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
Identify with Dart part # using a fine point permanent marker and Stock  
Location: \_\_\_\_\_

17.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



POSITIVE RECALL

EFFECTIVE 07/05/08 AUTH CMF

RELEASED \_\_\_\_\_ DATE \_\_\_\_\_

09-06-28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

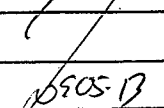
**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 47810
<b>Description:</b> FWD WEAR PLATE		<b>Part Number:</b> D3844-041
<b>Inspection Dwg:</b> D3844-1 <b>Rev:</b> PRE LHM		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

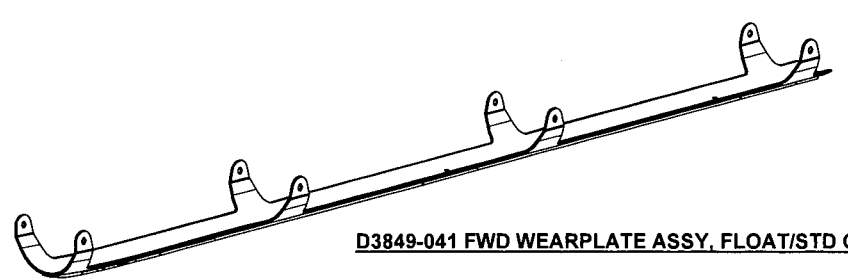
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.300	+/- .010	.306	*			
.350	+/- .010	.353	*			
<del>.304</del>	<del>+/- .010</del>					
<del>.300</del>	<del>+/- .010</del>					
.125	+/- .010	.132	*			
.875	+/- .010	.875	*			
Ø .188	+ .005 - .001	.192	*			
2.433	+/- .010	2.437	*			
6.642	+/- .010	6.639	*			
2.45	+/- .030	2.45	*			
4.38	+/- .030	4.38	*			
7.00	+/- .030	7.005	*			
34.500	+/- .010	34.500	*			
54.16	+/- .030	54.16	*			
4.00	+/- .030	4.003	*			
7.84	+/- .030	7.841	*			
6.794	+/- .010	6.796	*			
5.79	+/- .030	5.790	*			
18.000	+/- .010	18.000	*			
36.000	+/- .010	36.000	*			
51.213	+/- .010	51.213	*			
10.50	+/- .010	10.48	*			

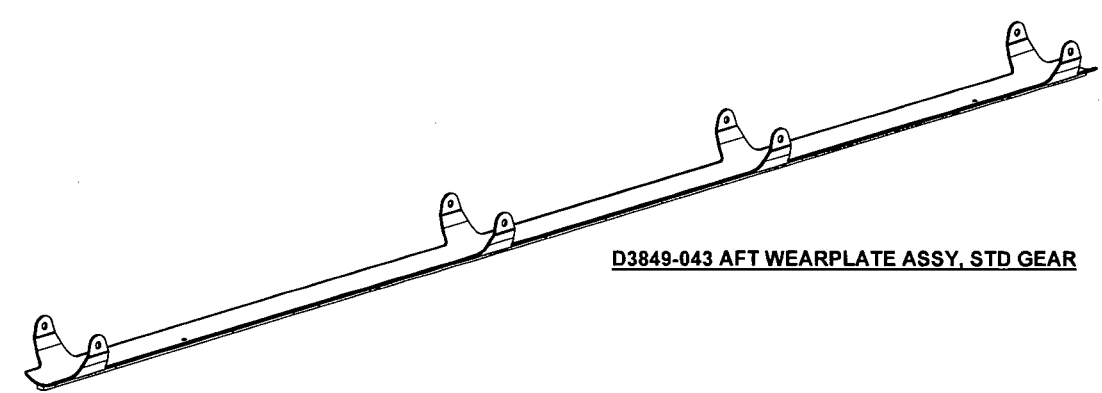
<b>Measured by:</b> RB	<b>Audited by:</b> 	<b>Prototype Approval:</b>
<b>Date:</b> 9-5-13	<b>Date:</b> 10-05-13	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

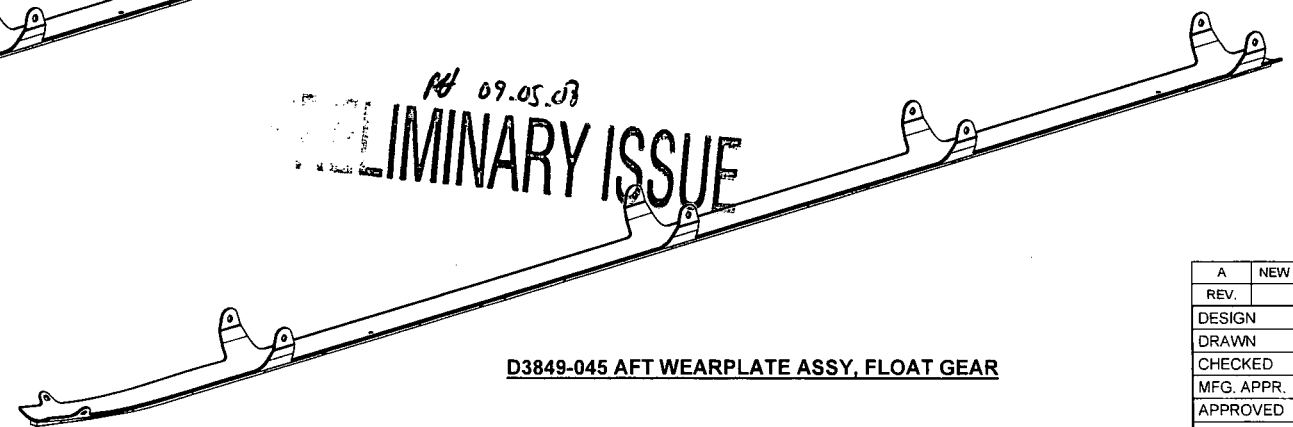
8 7 6 5 4 3 2 1



**D3849-041 FWD WEARPLATE ASSY, FLOAT/STD GEAR**



**D3849-043 AFT WEARPLATE ASSY, STD GEAR**



**D3849-045 AFT WEARPLATE ASSY, FLOAT GEAR**

RF 09.05.03  
**PRELIMINARY ISSUE**

ITEM	QTY -041	QTY -043	QTY -045	P/N	DESCRIPTION
1	X			D3849-041	FWD WEARPLATE ASSY, STD/FLOAT GEAR
2		X		D3849-043	AFT WEARPLATE ASSY, STD GEAR
3			X	D3849-045	AFT WEARPLATE ASSY, FLOAT GEAR
11	1			D3849-1	PLATE
12		1		D3849-3	PLATE
13			1	D3849-5	PLATE
14	1			D3848-1	GASKET
15		1		D3848-3	GASKET
16			1	D3848-5	GASKET
17	1			D3901-1	BAR
18		1		D3901-3	BAR
19			1	D3901-5	BAR
31	A/R	A/R	A/R	2059B	HARDCOAT
32	A/R	A/R	A/R	1300 (OR 1300L)	3M SCOTCH-GRIP ADHESIVE

A	NEW ISSUE	RF	09.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.03.30		

**DART AEROSPACE USA, INC.**  
PORT HADLOCK, WA

DRAWING NO.  
**D3849**

TITLE  
**WEARPLATE ASSY**

REV. A  
SHEET 1 OF 8

SCALE  
NTS

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8 7 6 5 4 3 2 1



**Dart Aerospace Ltd**

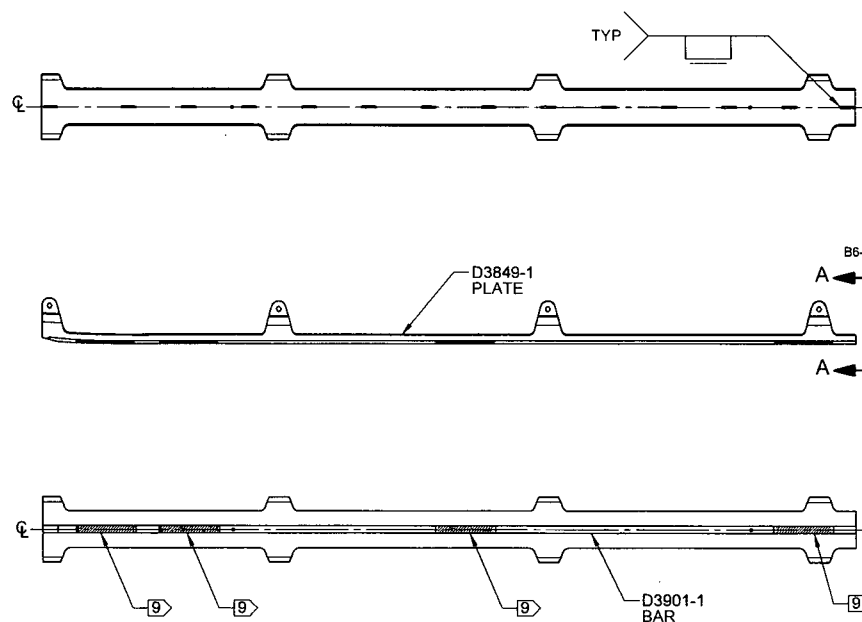
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

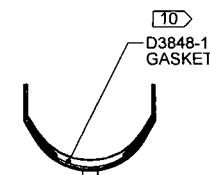
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3849-041 FWD WEARPLATE ASSY, STD/FLOAT GEAR**



**SECTION A-A** C2-2  
**SCALE 2X**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEXT" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3849-041" USING YELLOW PAINT MARKER AT INSIDE SURFACE
- 7) WEIGHT: D3849-041 = 4.24 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D3901-1 BAR ON ALL 3 SURFACES
- 10) AFTER FINISH, BOND D3848-1 GASKET TO INNER SURFACE OF WEARPLATE USING A THIN LAYER OF 3M 1300/1300L SCOTCH GRIP ADHESIVE

*REV 09-05-07*  
**PRELIMINARY ISSUE**

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWN	RF		
CHECKED	RF	DRAWING NO. <b>D3849</b>	REV. A
MFG. APPR.	RF		SHEET 2 OF 8
APPROVED	RF	TITLE <b>WEARPLATE ASSY</b>	SCALE NTS
DE APPR.	RF	COPYRIGHT © 2003 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	
DATE	09.03.30		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

0.3 REF

R38.5

49.51

**D3849-1 PLATE**  
(MAKE FROM D3849-1F)

A6-8

0.050  
REF

7.84 6.794

Ø0.188 THRU  
2 PL

DETAIL G

R0.38  
TYP

DETAIL F

R0.50  
TYP

4.00  
TYP

DETAIL H

R0.06  
2 PL

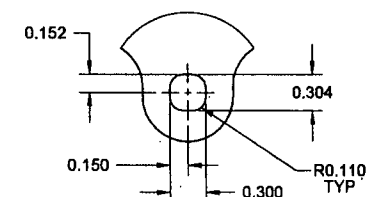
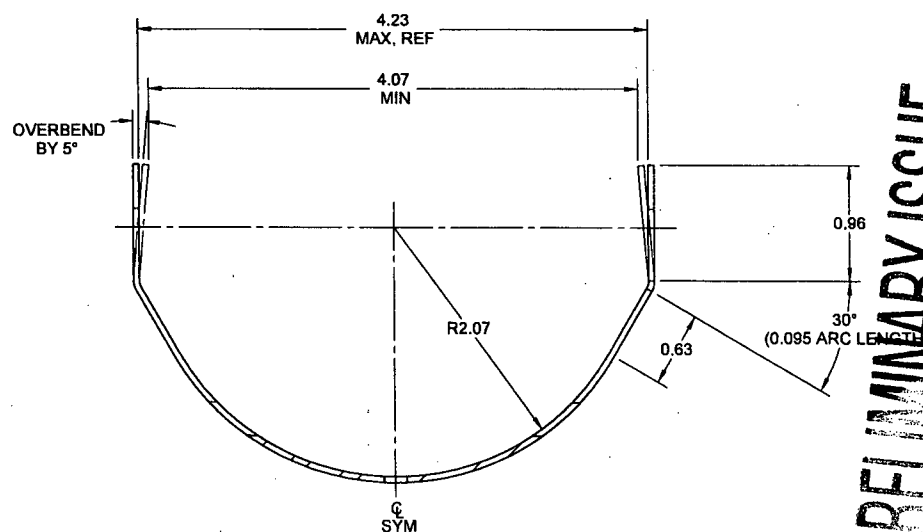
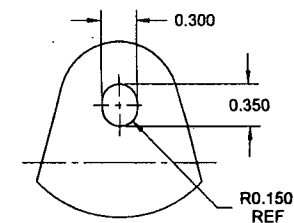
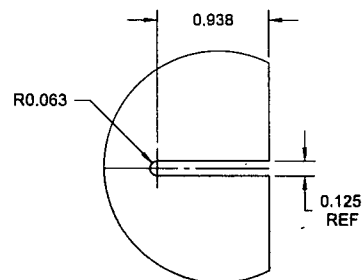
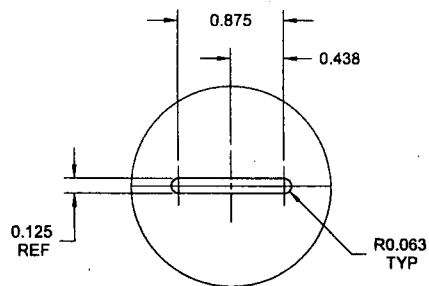
**D3849-1F FLAT PATTERN**

## NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524  
18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.3 lbs

**PRELIMINARY ISSUE**

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	B	DRAWING NO.	REV. A
MFG. APPR.	13	<b>D3849</b>	SHEET 5 OF 8
APPROVED	14	TITLE	SCALE
DE APPR.	14	<b>WEARPLATE ASSY</b>	NTS
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PRELIMINARY ISSUE  
PRELIMINARY ISSUE

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	RF	D3849	SHEET 8 OF 8
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	WEARPLATE ASSY	NTS
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# Receiving Report

Date: 9/5/12  
 Supplier: MAGNA

Batch No: M111743  
 Dart P/O: 8780

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☐ No ☒  
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☐ No ☒ N/A ☐  
 Waybill Attached: Yes ☐ No ☒ N/A ☐  
 Shipment Complete: Yes ☒ No ☐ N/A ☐  
 QC6 Inspection 8/6/12 N/A ☒  
 Work Order 8/6/12 N/A ☒

Discrepancies						
Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

Production/Admin:    
 Date:    
 Received/Costing:    
 Initial:  

Location  

H:\FORMS\Purchasing\approved purch\REGREPORT Rev D

**Magna Stair**  
 5775 Kieran St, Saint-Lauren  
 Phone: (514) 339-1211 Watts: 1-800-36

**SOLD TO:**  
 DART AEROSPACE LTD  
 1270 ABERDEEN STREET  
 HAWKESBURY  
 K6A 1K7  
 Contact: CHANTAL  
**SHIP TO:**  
 DART AEROSPACE LTD  
 1270 ABERDEEN STREET  
 HAWKESBURY  
 K6A 1K7  
 Ship Terms: PREPA

**Currency:** CANADIAN DOLLARS  
**Sales Person:** ERYCK BLAIS  
**Terms:** NET 30 DAYS  
**Order:** W012262  
**Terms:** ☒ **NET 30 DAYS**  
**Order:** N1R-R-557065

Ordered	Back Ordered	Unit	Description
2		PC	STAINLESS SHEET SSH 304 2B 18ga x 48" x 96"

Skids: 1

Received by:   Date:



# Magna Stainless

5775 Kieran St, Saint-Laurent, Quebec H4S 0A3  
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105

## PACKING LIST

I011033

Page: 1 of 1

SOLD TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET

SHIP TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET

HAWKESBURY, ON  
K6A 1K7  
Contact: CHANTAL

HAWKESBURY, ON  
K6A 1K7  
Ship Terms: PREPAID

MTR:Y

SPECIAL INSTRUCTIONS

STOCK

Currency		Sales Person	Customer Phone	Customer Fax	Customer PO	
CANADIAN DOLLARS		ERYCK BLAIS	(613) 632-5200	(613) 632-1053	8780	
Sales Order	Terms		Ship Via	Date Ordered	Date Required	Date Shipped
W012262	NET 30 DAYS		NIR:R-557065-1	05/11/09	05/12/09	05/12/09

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
2 ✓		PC	STAINLESS SHEET SSH 304 2B 18ga x 48" x 96" 134 LB / 2 PC	L019433	SC17938	2
Skids: 1				Total Weight:		134 LB

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Signature: \_\_\_\_\_

# POSCO Mill Test Certificate/검사증명서 M017117

Certificate No./증명서번호: 080910-PRSE-010-001  
Date of Issue/발행일자: Sep., 16, 2008  
Surface Finish/표면마무리: NO.2B

Order No./계약번호: 0008353485

PO No./주문번호: 3353485

Supplier/주문자: DAE WOO INTERNATIONAL CORP.

Commodity/품명: STAINLESS COLD ROLLED GOIL

Customer/고객사: MAGNA STAINLESS INC.

Spec. & Type/규격: ASTM-A240-304

OK P. 08.12

Size/치수	Product No./제품번호	Quantity/수량	Weight (kg)/중량	Heat No./제강번호	P. S. T. R. O. N.	Tensile/인장시험 YS 0.2% TS EL (MPa) (%)	Hardness/경도 HRB	Chemical Composition/화학성분(%) C Si Mn P S Cr Ni Cu Mo N
0.90x1219x0	QEH0799A	1	4.677	SE37926	T	286 643 80	82.0	0.04 0.03 0.03 0.04 0.02 18.18 8.04 0.02 0.02 0.01
0.90x1219x0	QEH0799B	1	4.677	SE37926	B	277 643 80	83.5	0.04 0.03 0.03 0.04 0.02 18.18 8.04 0.02 0.02 0.01
*** Sub Total (010) ***		2				9.354 (kg)		
1.20x1219x0	QEH0031B	1	5.649	SC17933	T	281 651 60	82.3	0.04 0.03 0.03 0.04 0.02 18.11 8.04 0.02 0.02 0.01
1.20x1219x0	QEH0031C	1	4.150	SC17936	T	281 651 60	82.3	0.04 0.03 0.03 0.04 0.02 18.11 8.04 0.02 0.02 0.01
1.20x1219x0	QEH0031D	1	6.546	SC17933	T	281 651 60	82.3	0.04 0.03 0.03 0.04 0.02 18.11 8.04 0.02 0.02 0.01
*** Sub Total (020) ***		3				19.935 (kg)		
1.50x1219x0	QEH0030A	1	5.368	SC17797	T	285 643 58	83.7	0.04 0.03 0.03 0.04 0.02 18.02 8.03 0.02 0.02 0.01
1.50x1219x0	QEH0030B	1	5.379	SC17797	T	285 643 58	83.7	0.04 0.03 0.03 0.04 0.02 18.02 8.03 0.02 0.02 0.01
1.50x1219x0	QEH0030C	1	5.225	SC17797	T	285 643 58	83.7	0.04 0.03 0.03 0.04 0.02 18.02 8.03 0.02 0.02 0.01
*** Sub Total (030) ***		3				15.970 (kg)		

Position: T: Top, M: Middle, B: Bottom

Tensile Test: Direction: Transversal, Gauge Length: 50mm (Rectangular)

YP Method: 0.2% off-set

Division: 1: Lead Analysis

Chemical Composition Unit: 2x1/100, 3x1/1000, 4x1/10000, 5x1/100000

T: It is within the standard range (<0.008%) and include trace element.

We hereby certify that the material herein has been made in accordance with the order and specification.

Test Certificate is issued according to EN10204 3.1B.

This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

POSCO Pohang Works, 5 Dongchon-dong, Nam-gu, Pohang-si, Gyeongsangbuk-do, 790-785, Korea

W.G. Jo  
Chief of material testing section Jo, Won (



# DART

## Purchase Order

Date May 11, 2009	Page 1
Purchase Order Number PO00008780	

Dart Aerospace Ltd  
1270 Aberdeen St  
Hawksbury, Ontario K6A 1K7  
Phone: (613)632-9577  
Fax: (613)632-1053

**FAXED**  
06/16/09

**Vendor Address:**

Magna Stainless  
5775 rue Kieran  
St Laurent, Quebec H4S 0A3  
Canada  
Phone (514) 339-1211  
Fax (514) 339-1105

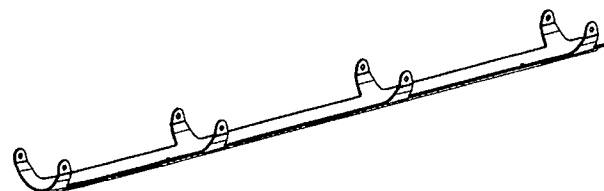
**Ship To:**

Main Finished Goods Location  
Dart Aerospace Ltd  
1270 Aberdeen St  
Hawksbury, Ontario K6A 1K7

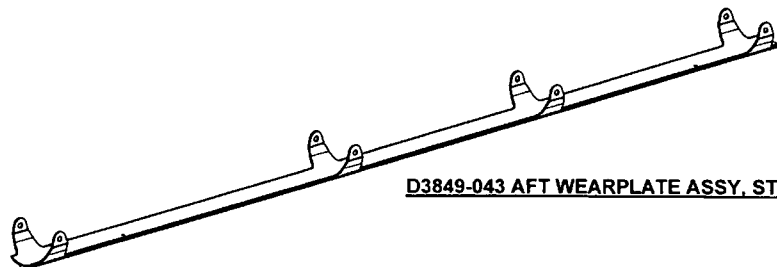
Reference	Contact	Vendor Number	PO Date	Terms	Ship Via	Expected Arrival
		VC-MAG002	May 11, 2009	N30	yours	May 12, 2009

Qty. Ordered	Item Number	Description	Expected Arrival	Drop-Ship	Unit Cost	UOM	Extended Price
64.0000	M304S18GA	304/316 .050 Sheet Comments: MATERIAL: AISI 304/316 AS PER AMS 5513 OR 5524	12/05/2009	No	5.000000	sf	320.00
<div>MATERIAL CERTIFICATION REQ'D UPON DELIVERY</div>							
Comments:		Tax Summary:		Less:			
		GST		included tax		0.00	
		ONT PST		Subtotal		320.00	
		Entered By: CL CLAVOIE		Total tax		16.00	
		Approved By: _____		Total purchase order in			
				CAD Dollars		336.00	

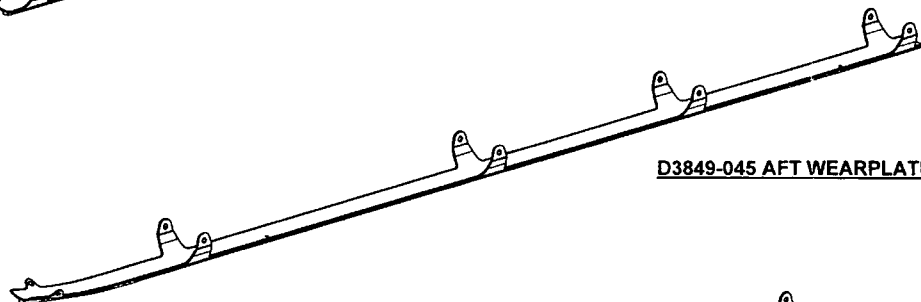
8 7 6 5 4 3 2 1



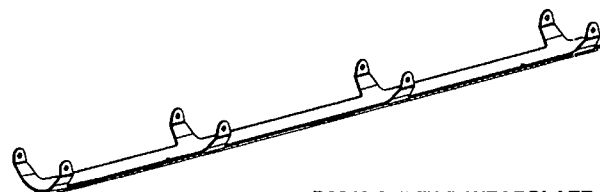
**D3849-041 FWD WEARPLATE ASSY, STD GEAR**



**D3849-043 AFT WEARPLATE ASSY, STD GEAR**



**D3849-045 AFT WEARPLATE ASSY, FLOAT GEAR**



**D3849-047 FWD WEARPLATE ASSY, FLOAT GEAR**

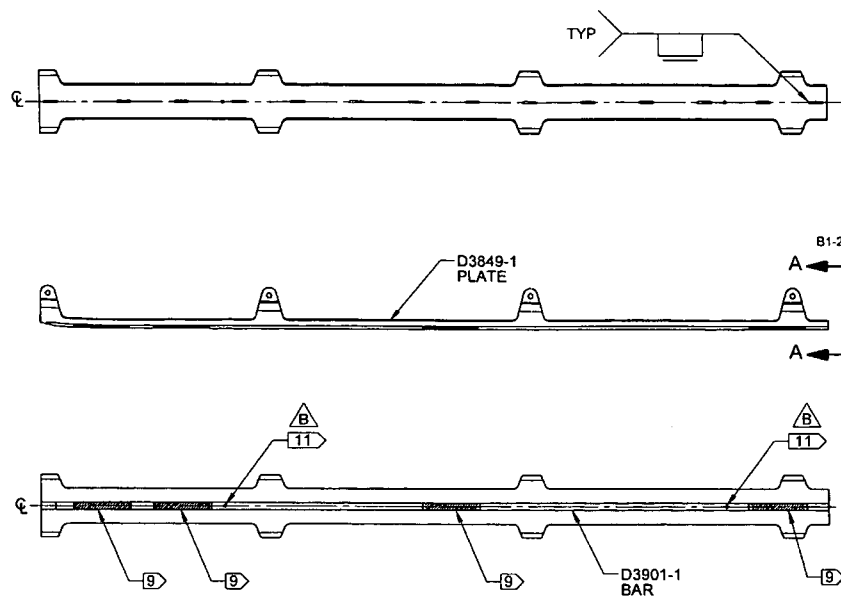
ITEM	QTY -041	QTY -043	QTY -045	QTY -047	P/N	DESCRIPTION
1	X				D3849-041	FWD WEARPLATE ASSY, STD GEAR
2		X			D3849-043	AFT WEARPLATE ASSY, STD GEAR
3			X		D3849-045	AFT WEARPLATE ASSY, FLOAT GEAR
4				X	D3849-047	FWD WEARPLATE ASSY, FLOAT GEAR
11	1				D3849-1	PLATE
12		1			D3849-3	PLATE
13			1		D3849-5	PLATE
14				1	D3849-7	PLATE
15	1				D3848-1	GASKET
16		1			D3848-3	GASKET
17			1		D3848-5	GASKET
18				1	D3848-7	GASKET
19	1			1	D3901-1	BAR
20		1			D3901-3	BAR
21			1		D3901-5	BAR
31	A/R	A/R	A/R	A/R	2059B	HARDCOAT
32	A/R	A/R	A/R	A/R	1300 (OR 1300L)	3M SCOTCH-GRIP ADHESIVE

47810

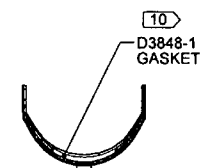
RELEASED  
8/6/15

B	REVISED FLAT PATTERN Ø0.375 WAS SLOT HOLE ON D3849-1F/3F/5F (ZN A4-5, B4-7, B4-8, C2-10, B2-10); ADD D3849-047 (ZN D4-1, A4-1 & B4-5) & D3849-7/7F (ZN C4-9, A4-9); ADD SECTION K-K (ZN C5-10); 0.88 WAS 0.875 & 0.44 WAS 0.438 (ZN A3-10); ADD 0.25 & 0.88 (ZN D4-10, D3-10); ADD 0.88 & 0.24 (ZN C3-10 & B3-10); ADD FLAG NOTE (ZN A8-2, C6-2, C3-2, A8-3, C6-3, C3-3, A8-4, C6-4, C2-4); 66.87 WAS 67.36 (ZN B4-7)		RF	09.06.30
A	NEW ISSUE		RF	09.03.30
REV.	DESCRIPTION		BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.		
DRAWN	RF	PORT HADLOCK, WA		
CHECKED	RF	DRAWING NO.	REV. B	
MFG. APPR.	RF	D3849	SHEET 1 OF 10	
APPROVED	RF	TITLE	SCALE	
DE APPR.	RF	WEARPLATE ASSY	NTS	
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8 7 6 5 4 3 2 1



**D3849-041 FWD WEARPLATE ASSY. STD/FLOAT GEAR** B



**SECTION A-A** C3-2  
SCALE 2X

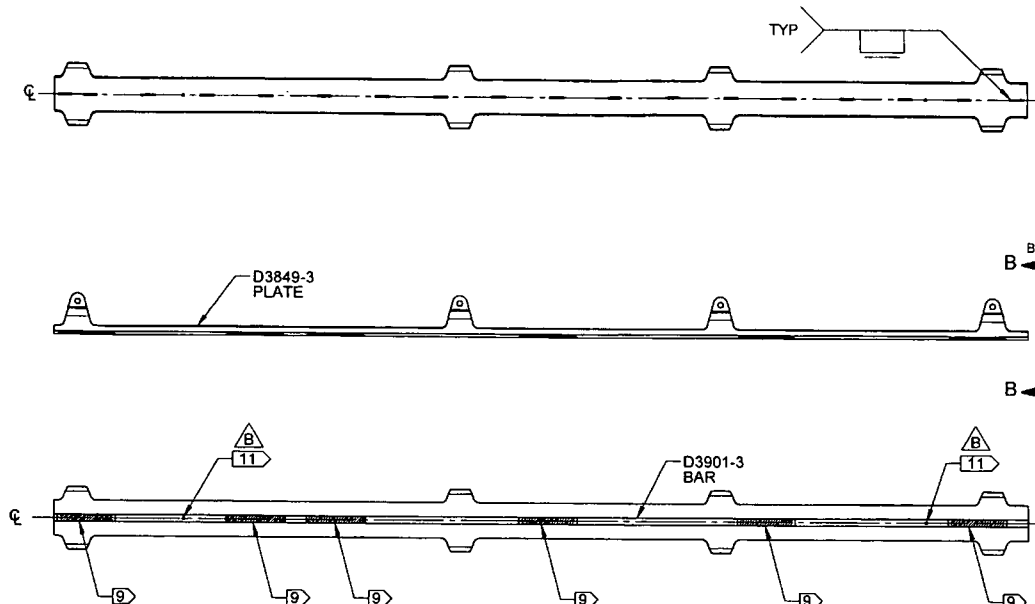
**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEXT" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3849-041" USING YELLOW PAINT MARKER AT INSIDE SURFACE
- 7) WEIGHT: D3849-041 = 4.24 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D3901-1 BAR ON ALL 3 SURFACES
- 10) AFTER FINISH, BOND D3848-1 GASKET TO INNER SURFACE OF WEARPLATE USING A THIN LAYER OF 3M 1300/1300L SCOTCH GRIP ADHESIVE
- 11) TRANSFER DRILL  $\varnothing 0.188$  HOLES FROM D3849-1 PLATE TO D3901-1 BAR

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CHECKED	<i>RF</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>RF</i>	D3849	SHEET 2 OF 10
APPROVED	<i>RF</i>	TITLE	SCALE
DE APPR.	<i>RF</i>	WEARPLATE ASSY	NTS
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11/07/15

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**D3849-043 AFT WEARPLATE ASSY, STD GEAR**

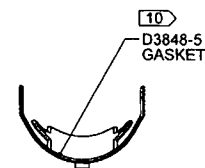
**SECTION B-B C2-3**  
**SCALE 2X**

**RELEASED**  
9/27/15

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3849-043" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3849-043 = 5.21 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D3901-3 BAR ON ALL 3 SURFACES
- 10) AFTER FINISH, BOND D3848-3 GASKET TO INNER SURFACE OF WEARPLATE USING A THIN LAYER OF 3M 1300/1300L SCOTCH GRIP ADHESIVE
- 11) TRANSFER DRILL Ø0.188 HOLES FROM D3849-3 PLATE TO D3901-3 BAR

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MFG. APPR.	RF	D3849	SHEET 3 OF 10
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	WEARPLATE ASSY	NTS
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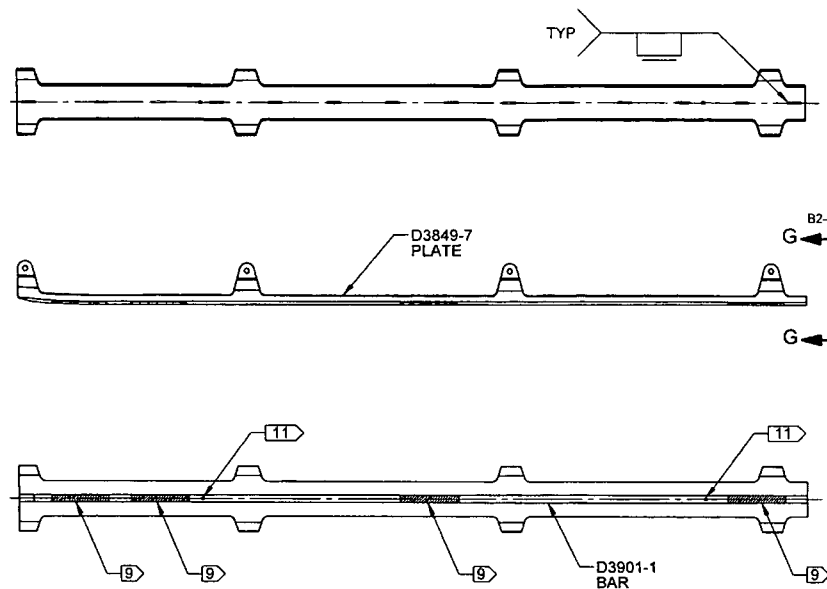
**SECTION C-C** C2-4  
**SCALE 2X**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3849-045" USING YELLOW PAINT MARKER AT INSIDE SURFACE
- 7) WEIGHT: D3849-045 = 5.98 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D3849-5 BAR ON ALL 3 SURFACES
- 10) AFTER FINISH, BOND D3848-5 GASKET TO INNER SURFACE OF WEARPLATE USING A THIN LAYER OF 3M 1300/1300L SCOTCH GRIP ADHESIVE
- 11) TRANSFER DRILL Ø0.188 HOLES FROM D3849-5 PLATE TO D3901-5 BAR

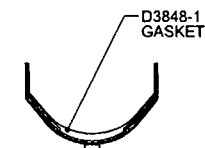
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09/03/15

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MFG. APPR.	RF	<b>D3849</b>	SHEET 4 OF 10
APPROVED	RF	TITLE	SCALE
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**D3849-047 FWD WEARPLATE ASSY, FLOAT GEAR**  $\triangle$  B



**SECTION G-G** C3-5  
SCALE 2X

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEXT" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3849-047" USING YELLOW PAINT MARKER AT INSIDE SURFACE
- 7) WEIGHT: D3849-047 = 4.26 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D3901-1 BAR ON ALL 3 SURFACES
- 10) AFTER FINISH, BOND D3848-7 GASKET TO INNER SURFACE OF WEARPLATE USING A THIN LAYER OF 3M 1300/1300L SCOTCH GRIP ADHESIVE
- 11) TRANSFER DRILL  $\phi$ 0.188 HOLES FROM D3849-7 PLATE TO D3901-1 BAR

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
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CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D3849	SHEET 5 OF 10
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	WEARPLATE ASSY	NTS
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09/07/15

0.3 REF

R38.5

49.51

**D3849-1 PLATE**  
(MAKE FROM D3849-1F)

A6-10

0.050  
REF

$\Delta$ B  
7.72

$\phi$ 0.188 THRU  
2 PL

$\Delta$ B  
51.313

36.000

DETAIL G

R0.38  
TYPA3-10  
DETAIL F105°  
TYPR0.50  
TYP4.00  
TYP

C3-10

DETAIL H

$\Delta$ B  
2.433  
6.642  
4 PL

R0.06  
2 PL

$\Delta$ B  
54.26 REF

**D3849-1F FLAT PATTERN**  $\Delta$ B

## NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524  
18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.33 lbs

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D3849	SHEET 6 OF 10
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	WEARPLATE ASSY	NTS
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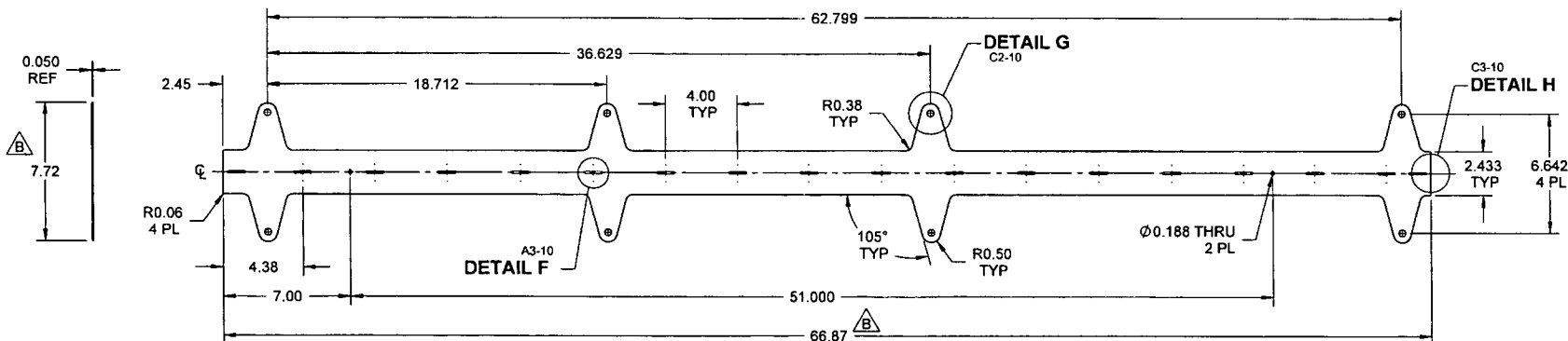
RELEASED  
09/27/15

8 7 6 5 4 3 2 1



**D3849-3 PLATE**  
(MAKE FROM D3849-3F)

E  
E  
A6-10



**D3849-3F FLAT PATTERN**

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524  
18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.82 lbs

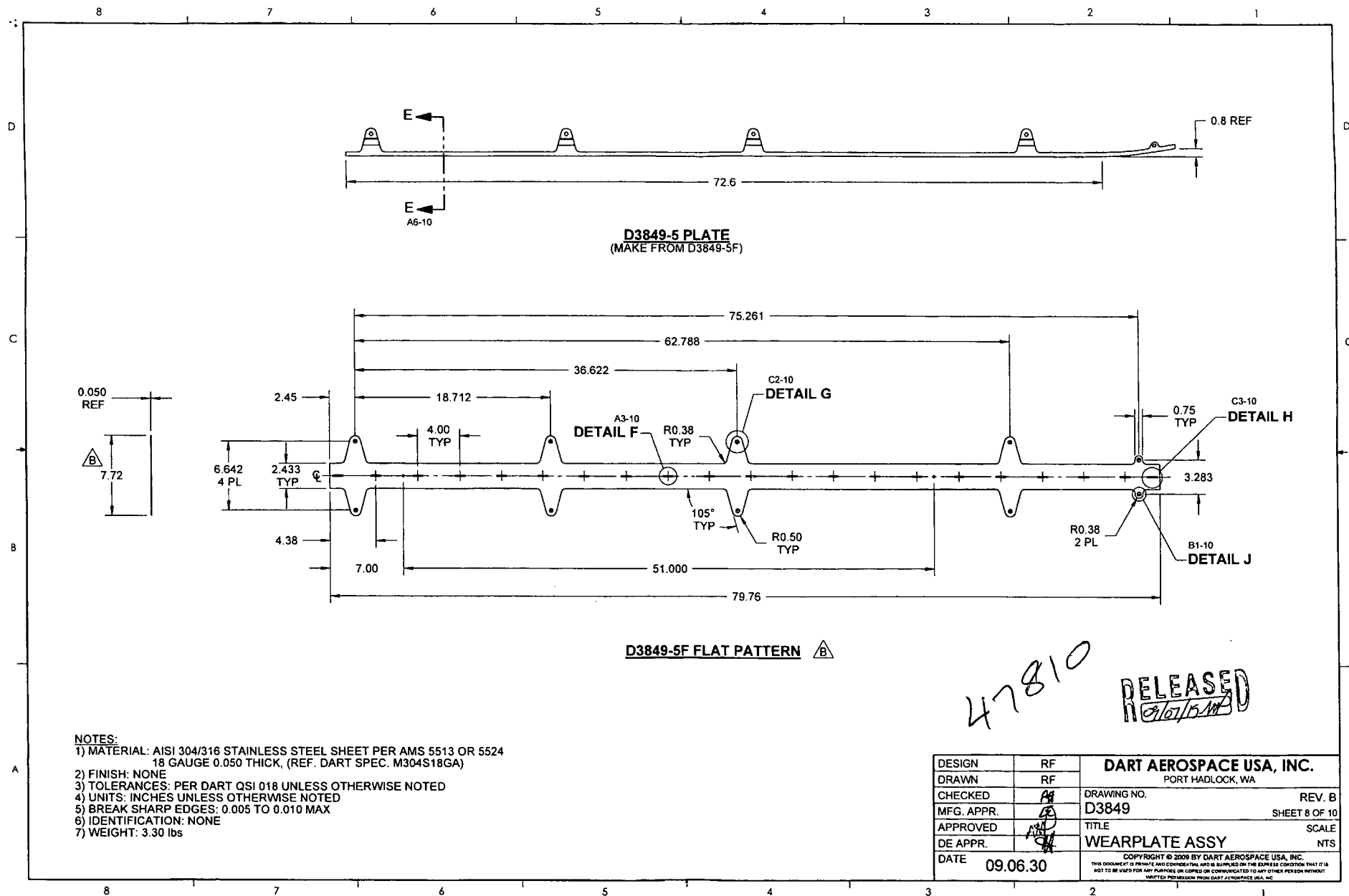
DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3849	SHEET 7 OF 10
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
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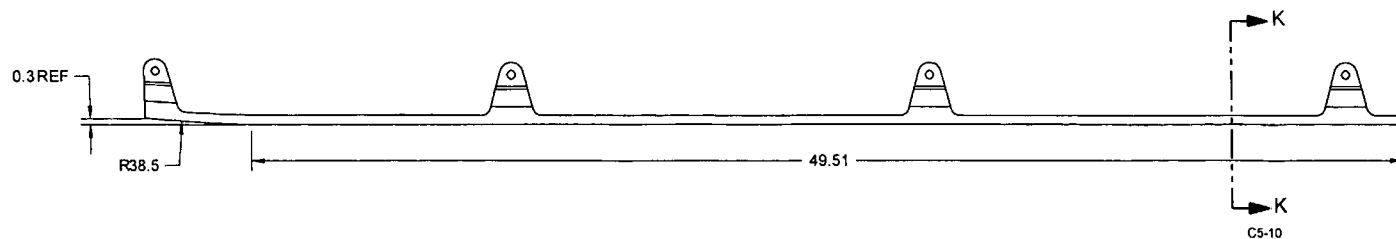
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10/6/15/11

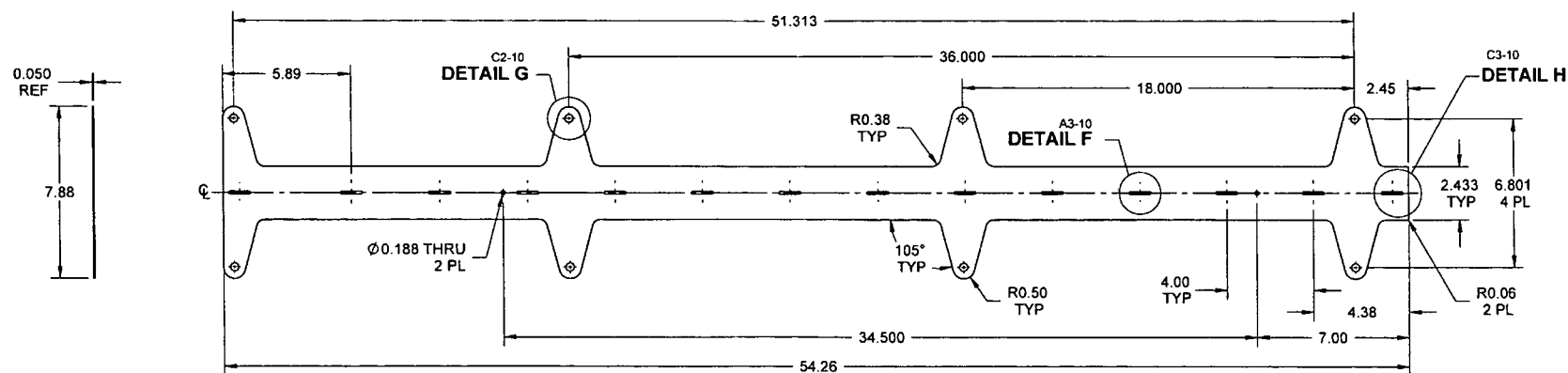
8 7 6 5 4 3 2 1







**D3849-7 PLATE**   
(MAKE FROM D3849-7F)



**D3849-7F FLAT PATTERN**

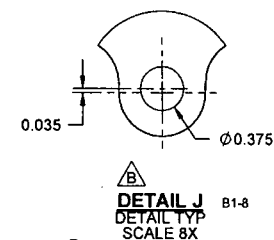
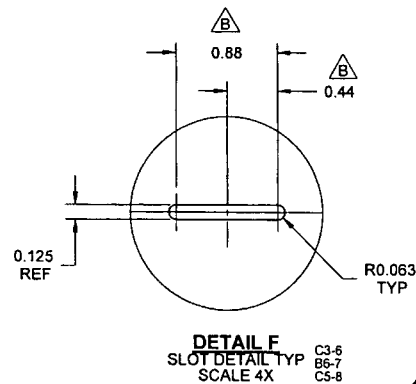
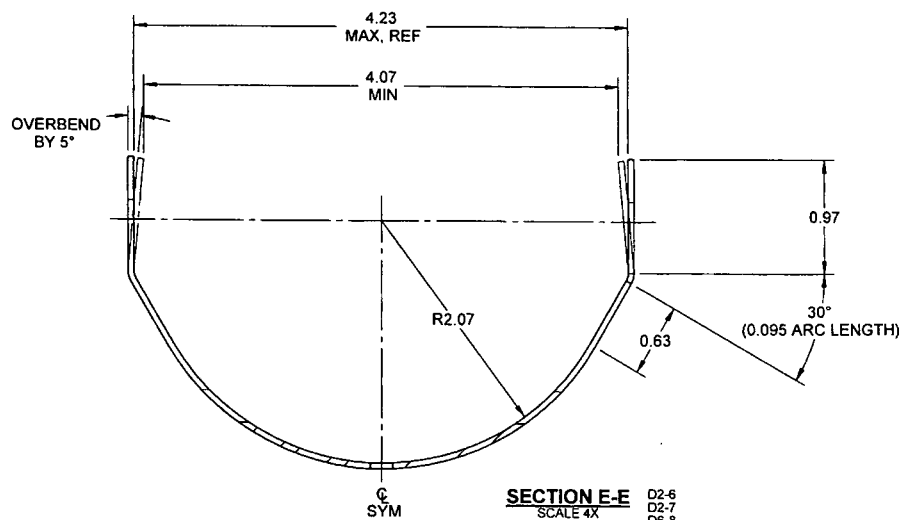
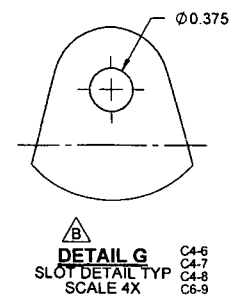
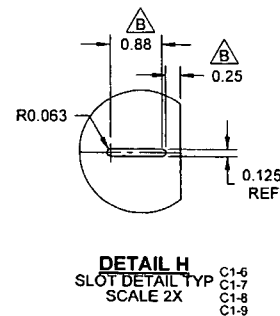
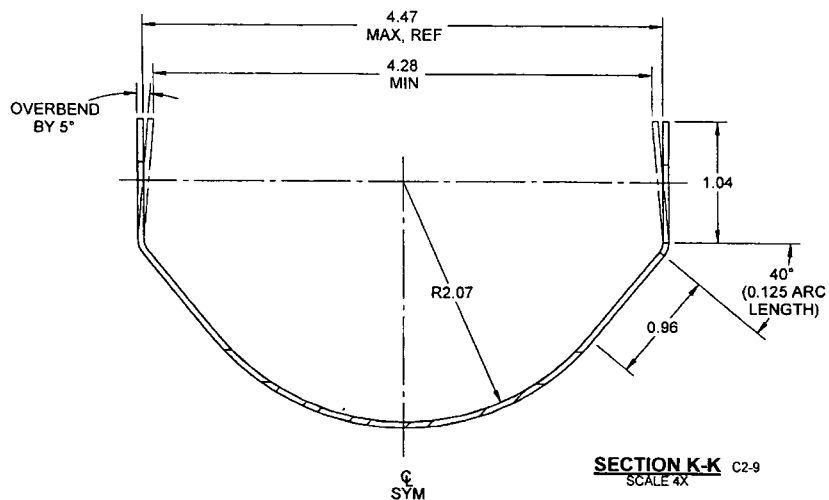
**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524  
18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.34 lbs

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
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MFG. APPR.		D3849	SHEET 9 OF 10
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
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09/27/15

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MFG. APPR.	RF	D3849	SHEET 10 OF 10
APPROVED	RF	TITLE	SCALE
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10/17/54